

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
10 February 2005 (10.02.2005)

PCT

(10) International Publication Number  
**WO 2005/012691 A1**

(51) International Patent Classification<sup>7</sup>: **E21D 21/00**,  
20/02

(21) International Application Number:  
PCT/AU2004/001009

(22) International Filing Date: 30 July 2004 (30.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
2003904006 1 August 2003 (01.08.2003) AU

(71) Applicant (for all designated States except US): **GARFORD PTY LTD** [AU/AU]; 66 Paramount Drive, Wangara, W.A. 6065 (AU).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **HEDRICK, Neville** [AU/AU]; 66 Paramount Drive, Wangara, W.A. 6065 (AU).

(74) Agent: **TURONEK, Mary, Louise**; Lord and Company, 4 Douro Place, West Perth, Perth, W.A. 6005 (AU).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

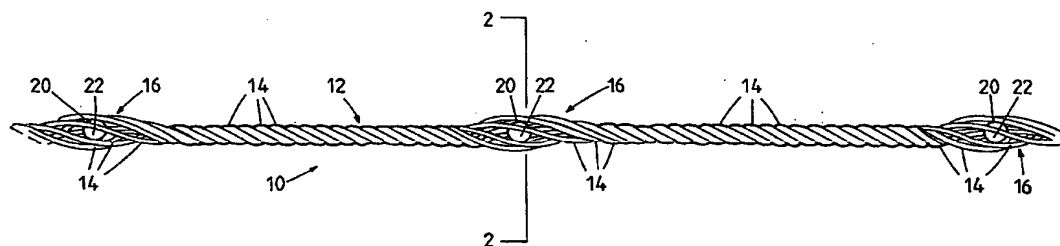
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: IMPROVED CABLE BOLT



(57) Abstract: A cable bolt is provided that is suited to stabilise rock surfaces, particularly to withstand loads placed on the cable bolt when tensioned to stabilise rock surfaces of coal mines. The cable bolt comprises a tendon composed of a plurality of strands, the tendon having a plurality of pre-formed bulbous portions. The bulbous portions house rigid elements, such as a ball bearing, which are inserted after the bulbous portions are formed. When the cable bolt is tensioned or stressed, the load placed on the bulbous portion will be resisted by the rigid element housed within the bulbous portion, thereby preventing the bulbous portion from collapsing.